

Standing Committee on Health and Ageing

**Parliamentary Inquiry into the
health benefits of breastfeeding**

Submission from Ros Lording

28 February 2007

Executive summary

The arguments presented in this submission have been informed by my personal experiences as a mother who is breastfeeding, and research I have undertaken in the field of lactation whilst completing a Master of Public Health, and as Research Summaries Editor of the lactation journal *Breastfeeding Review*.

The health benefits of breastfeeding, and the risks of not breastfeeding, are discussed with reference to the American Academy of Pediatrics' Policy Statement on breastfeeding.

The proliferation of advertisements for 'toddler' formula, bottles and teats, particularly in parenting magazines, has a significant impact on breastfeeding rates, as these images serve to present bottle-feeding as acceptable and as the norm for infant feeding.

The potential short and long term impact on the health of Australians of increasing the rate of breastfeeding are discussed, and the argument is made that national health frameworks should all incorporate specific breastfeeding measures.

Initiatives to encourage breastfeeding include appointing a National Breastfeeding Advocate, implementing all aspects of the WHO Code, developing a network of human milk banks in Australian maternity facilities, providing all health professionals with practical, evidence-based continuing breastfeeding education, addressing negative social and community attitudes towards breastfeeding, making breastfeeding support services, such as lactation consultants and breastfeeding peer support groups such as the ABA more accessible, and promoting breastfeeding-friendly workplaces.

The effectiveness of current measures to promote breastfeeding is examined with reference to the WHO Code and the ineffective MAIF Agreement, and the Baby Friendly Hospital Initiative.

Finally, the impact of breastfeeding on the long term sustainability of Australia's health system is discussed with reference to an Australian study which considered the hospital system costs of artificial feeding and early weaning.

Background - My breastfeeding experience

I am the mother of a 22 month old daughter who was exclusively breastfed to 5 months, and who continues to be breastfed.

Before I was pregnant and thinking about starting a family, I was very much aware that 'breast is best', although I was also under the impression that many women were unable to breastfeed, and that the latest artificial formulas were nutritionally very close to breastmilk.

When I was pregnant with my daughter, I was determined to breastfeed her until she was at least 6 months old, as I believed this was a suitable weaning age. Apart from attending one talk on breastfeeding as part of antenatal classes I attended, I did not make any other preparations to learn to breastfeed. I saw no point in reading books preparing new mothers for breastfeeding as I believed that it was a natural process which a mother would instinctively be able to do.

When my daughter was born, I found that breastfeeding was very different from what I had expected. I found it very difficult to attach her properly, and for the first six weeks, found breastfeeding painful and uncomfortable. I persisted with breastfeeding as by this stage, I was more aware of the benefits of breastfeeding, and the health risks associated with artificial milks. My husband was also very supportive of my decision.

Two events happened around six weeks which marked a turning point in my breastfeeding experience. I made contact with the Lactation Clinic at the hospital where I had given birth, and spent a day there with a very knowledgeable, encouraging lactation consultant who helped me learn how to attach my daughter to the breast so that I was not in any pain. I also made contact with a counsellor from the Australian Breastfeeding Association, who was also very positive and supportive and who helped me to gain confidence in my ability to breastfeed my daughter.

I have subsequently become very interested in the benefits and importance of breastfeeding, not only to infants but to mothers and to society as a whole, and have undertaken considerable research in this area as part of my studies and work editing the research summaries of a lactation journal.

Why am I still breastfeeding? The nutritional benefits of breastfeeding, and the risks of artificial feeding, are not the only reasons why I have continued to breastfeed for longer than I had previously anticipated. For me, breastfeeding is a lovely, pleasurable experience, and one which enhances the bond between a child and their mother. My daughter continues to be very enthusiastic about breastfeeding, and it consistently seems to have an effect on her which I could only describe as euphoric.

1. The extent of the health benefits of breastfeeding

The health benefits of breastfeeding have been extensively documented. This passage from the American Academy of Pediatrics' 1997 *Breastfeeding and the Use of Human Milk* Policy Statement clearly demonstrates the health benefits of breastfeeding, and conversely, the health risks of **not** breastfeeding.

'Epidemiologic research shows that human milk and breastfeeding of infants provide advantages with regard to general health, growth, and development, while significantly decreasing risk for a large number of acute and chronic diseases. Research in the United States, Canada, Europe, and other **developed** countries, among predominantly middle-class populations, provides strong evidence that human milk feeding decreases the incidence and/or severity of diarrhoea, lower respiratory infection, otitis media, bacteremia, bacterial meningitis, botulism, urinary tract infection, and necrotizing enterocolitis. There are a number of studies that show a possible protective effect of human milk feeding against sudden infant death syndrome, <http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b100/6/1035> - B22 insulin-dependent diabetes mellitus, Crohn's disease, ulcerative colitis, lymphoma, allergic diseases, <http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b100/6/1035> - B32 and other chronic digestive diseases. Breastfeeding has also been related to possible enhancement of cognitive development.

'There are also a number of studies that indicate possible health benefits for mothers. It has long been acknowledged that breastfeeding increases levels of oxytocin, resulting in less postpartum bleeding and more rapid uterine involution. Lactational amenorrhea causes less menstrual blood loss over the months after delivery. Recent research demonstrates that lactating women have an earlier return to pre-pregnant weight, delayed resumption of ovulation with increased child spacing, improved bone remineralization postpartum with reduction in hip fractures in the postmenopausal period, and reduced risk of ovarian cancer and premenopausal breast cancer.

'In addition to individual health benefits, breastfeeding provides significant social and economic benefits to the nation, including reduced health care costs and reduced employee absenteeism for care attributable to child illness. The significantly lower incidence of illness in the breastfed infant allows the parents more time for attention to siblings and other family duties and reduces parental absence from work and lost income. The direct economic benefits to the family are also significant. It has been estimated that the 1993 cost of purchasing infant formula for the first year after birth was \$US 855. During the first 6 weeks of lactation, maternal caloric intake is no greater for the breastfeeding mother than for the non-lactating mother. After that period, food and fluid intakes are greater, but the cost of this increased caloric intake is about half the cost of purchasing formula. Thus, a saving of >\$US 400 per child for food purchases can be expected during the first year¹.

¹ <http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b100/6/1035>

Artificial milks cannot possibly hope to replicate the health benefits of breastmilk. Despite the widely held view in our society that artificial milk formulas are so close to breastmilk as to be virtually indistinguishable, this perception could not be further from the truth. Artificial milk does not have the same health, nutritional, immunologic, developmental and psychological qualities as breastfeeding and breastmilk. As one researcher has noted:

'even modern formulas are only superficially similar to breastmilk. Fundamentally they are inexact copies based on outdated and incomplete knowledge of what breastmilk is. Formulas contain no antibodies, no living cells, no enzymes, no hormones. They contain much more aluminium, manganese, cadmium, and iron than breastmilk. They contain significantly more protein than breastmilk. The proteins and fats are fundamentally different from those in breastmilk. Formulas do not vary from the beginning of the feed to the end of the feed, or from day 1 to day 7 to day 30, or from woman to woman or from baby to baby².

Breastmilk is clearly markedly different from, and uniquely superior, to artificial milk.

² Newman (1987), cited in Smith JP (1999:77) Human milk supply in Australia. *Food Policy* 24(1):71-91.

2. Evaluate the impact of marketing of breast milk substitutes on breastfeeding rates and, in particular, in disadvantaged, Indigenous and remote communities

It is impossible to open up a pregnancy or parenting magazine these days without being struck by the number of advertisements for 'toddler' formula. These ads will invariably feature a cute child, and some I have recently observed feature a cup of milk but with a bottle-like teat. These ads all highlight the superior nutritional content of their product, the number of vitamins and minerals, and in many cases, the presence of properties such as Omega 3 DHA which they claim will promote eye, brain and nerve development.

An advertisement for Nutrica Karicare, for example, features a girl pretending to be a doctor – with the adage that this product will 'help toddlers reach their full potential'. This is very persuasive advertising, as let's face it, which parent doesn't secretly hope their child will grow up to be a successful professional?

I recall seeing an advertisement for infant formula in parenting magazines around a year ago. This advertisement featured six houses at nighttime, each with captions along the lines of 'formula to help unsettled babies sleep', 'formula to help babies with reflux', 'formula to help babies with diarrhoea', etc. I do not recall who the manufacturer of this product was, but am under the impression that the company was new to the infant milk market and was thus not a signatory to the Marketing in Australia of Infant Formula (MAIF) Agreement. Such marketing is unlawful; it is also misleading as it implies there are magical products which can 'treat' common ailments of infancy – despite the fact that breastfed babies are less at risk of developing diarrhea and other such conditions.

I am aware that the manufacturers of these artificial milks employ ingenious marketing strategies. I have heard that these manufacturers have used tactics such as having a stall at a baby expo, and giving away muffins made with artificial milk. Cans of toddler formulas are often given as prizes to the 'letter writer of the month' in parenting magazines. I once received a sample of toddler formula along with one edition of Coles Baby magazine.

In addition, parenting magazines contain numerous advertisements for bottles and teats, including ones which claim to reduce colic and wind, and to 'mimic breastfeeding'. Advertisements for brands such as Avent, Nuk and Pigeon feature a bottle filled with a milk-like substance; they do not even pretend that the substance shown is expressed breastmilk.

I believe the marketing of breastmilk substitutes, as well as bottles and teats, has the effect of normalising and legitimising artificial feeding. People see far more images of milk bottles than they see images of babies breastfeeding in the media. People then internalise these images and advertisements, and conclude that it is normal to bottle-feed babies. When one considers the nutritional claims made in advertisements for toddler milks, some parents may infer that infant formulas are nutritionally superior to breastmilk. In my personal experience, I have had some friends (who have bottle-fed their children and who still use toddler milks) ask me why I am still breastfeeding my daughter when I could be giving her toddler formula instead!

3. The potential short and long term impact on the health of Australians of increasing the rate of breastfeeding

Based on the epidemiological research reviewed by the American Academy of Pediatrics in their 1997 policy statement, the short and long term impact on the health of Australians of increasing the rate of breastfeeding would be:

- A reduction in the incidence and/or severity of numerous acute and chronic diseases such as diarrhea, lower respiratory tract infections, obesity and insulin-dependent diabetes;
- A possible enhancement of cognitive function;
- A reduction in postpartum bleeding and more rapid uterine involution among postpartum mothers;
- An earlier return to pre-pregnant weight, delayed resumption of ovulation with increased child spacing, improved bone remineralization postpartum with reduction in hip fractures in the postmenopausal period, and reduced risk of ovarian cancer and premenopausal breast cancer among lactating mothers;
- Social and economic benefits, such as reduced health care costs, reduced employee absenteeism for care attributable to child illness, and economic savings from not having to purchase artificial formula.

The direct and indirect costs of treating many acute and chronic diseases are prohibitive. For example, a 2006 report released by Access Economics has estimated the yearly financial cost of obesity in Australia as \$3.7 billion. This figure includes the cost of obesity on the health care system as well as the loss of productivity in the workplace. Furthermore, a 2002 national study into the burden of Type 2 diabetes which was released by the Australian Diabetic Society and Australian Diabetes Educators Association revealed the burden of diagnosed type 2 diabetes in Australia is an estimated \$3 billion a year.

Australia's current *National Chronic Disease Framework, Strategy and Blueprint* is underpinned by an emphasis on health promotion, prevention and monitoring population trends in the risk factors for chronic disease. It therefore makes sense to incorporate specific breastfeeding measures into this Framework, as well as strategies and frameworks for other acute and chronic diseases, particularly when an association between breastfeeding and a reduced incidence of the disease in question has been demonstrated.

From my personal experience, breastfeeding has enormous health and immunological benefits, even to toddlers. Compared to many babies and toddlers I know who have not been breastfed, my daughter and her fully breastfed counterparts have much more robust health. For example, I returned to work when my daughter was just over 7 months old, and have never needed to take any time off work due to her being sick. This is in contrast with friends who have not breastfed their children, or who have weaned them after a few months, and whose children experience illness such as respiratory infections and middle ear infections on a regular basis.

4. Initiatives to encourage breastfeeding

There are a number of initiatives which the government must implement in order to encourage breastfeeding among Australian women.

4.1 Appoint a National Breastfeeding Advocate

The *Innocenti Declaration* recommends the appointment of National Breastfeeding Advocates. It is time to appoint such an Advocate in Australia. The role of this Advocate would be to take responsibility for national breastfeeding rates and targets, and to ensure there is a coordinated, whole of government approach to promoting breastfeeding.

It is not appropriate for someone such as a Parliamentary Secretary for Health to consider themselves the National Breastfeeding Advocate. The person who occupies this position must be apolitical, be a breastfeeding 'champion', and have a demonstrated commitment to breastfeeding.

4.2 Implement all aspects of the WHO Code

See Section 5.1 for further details.

4.3 Develop a network of human milk banks in Australian maternity facilities

Human milk banks are services established to collect, screen, process and distribute donated human milk to individuals who cannot be breastfed. The recipients of donor milk include preterm infants, ill infants, immunosuppressed children and adults with chronic medical conditions, and infants with no specific medical condition, such as adopted infants. Preterm and ill infants, however, are the most common recipients of donor milk. Their mothers may have an insufficient milk supply (particularly in cases of multiple births), or they may be unable to breastfeed due to contraindicated medications or serious illness, for instance.

Whilst the benefits of human milk for term infants have been extensively documented, current research indicates that human milk is especially important for preterm infants. Human milk is less stressful to a preterm infant's gut than artificial milk. It also confers non-nutritional advantages to these infants through the delivery of immunoprotective and growth factors to the immature gut mucosa. Compared to artificially-fed preterm infants, there is also evidence that preterm infants fed human milk have a lower incidence of feed intolerance and gastrointestinal upset, and a lower incidence of infections including necrotising enterocolitis (NEC) than infants who receive artificial milk. Human milk, including donor milk feedings in a preterm infant's first month of life, has also been associated with higher IQ scores at school age.

Similarly, human milk's unique properties, in particular its antibodies against common infections, make it extremely important for ill infants. Donor milk has been successfully used to treat a number of medical conditions in infants. These conditions include failure to thrive, allergies (including intolerance to artificial milk), gastrointestinal problems such as NEC and diarrhoea, immune deficiency, and congenital anomalies. It has also been administered to infants as post-operative therapy.

Human milk banks have operated in Australia since the late 1970's, although emergence of HIV/AIDS in the mid 1980's; and concerns about potential

transmission of HIV through breastmilk was responsible for the closure of many human milk banks in Australia and internationally. Earlier last year, Australia opened its first human milk bank in some two decades at the King Edward Memorial Hospital in Perth. There are plans to open up a further three banks in the Gold Coast, Melbourne and Sydney within the next two years.

Human milk banks can complement existing breastfeeding promotion and support strategies, such as the employment of lactation consultants in maternity hospitals and the referral of mothers to Australian Breastfeeding Association counsellors and social support groups. Human milk banks need to be integrated into existing breastfeeding support services, and not developed as a stand alone policy.

Breastfeeding would be encouraged if breastmilk, rather than artificial milk, was more readily available for mothers who may be temporarily unable to breastfeed. Women who had had an emergency delivery and whose milk was late to 'come in', for instance, would benefit greatly from such an arrangement, as at present, their infants would be artificially fed. Not only does this deprive infants of breastmilk's nutritional and immunological properties, it may also hinder the new mother's ability to establish breastfeeding.

The government thus needs to support the development of human milk banking guidelines which are evidence-based, and support the establishment of human milk banks in all Australian maternity facilities.

4.4 Provide all health professionals with practical, evidence-based continuing breastfeeding education

Support from health professionals can have a significant impact on breastfeeding initiation and continuation. Whilst breastfeeding is increasingly recognised as an important public health strategy, improvements in breastfeeding rates will only be realised if health professionals who advise and support childbearing women are appropriately trained and educated.

There is evidence that many health professionals, midwives included, feel unprepared to confidently support breastfeeding mothers, irrespective of whether supporting breastfeeding mothers was a small or large part of their work³. Many professionals acknowledge that breastfeeding support played only a very small part of their training. I have heard that in medical schools, breastfeeding education is confined to physiological aspects of breastfeeding, with little or no mention of the benefits of breastmilk, let alone strategies to encourage and support women to breastfeed. In a study from the United Kingdom, a breastfeeding training needs analysis among health professionals revealed that breastfeeding courses seldom taught skills to support breastfeeding women⁴. Breastfeeding women in the same study stated that health professionals needed better training in communication skills, particularly the emotional aspects of care. A mismatch was thus observed between the training women felt professionals needed, and the training available.

Breastfeeding education must be a part of a health professional's continuing education, as there are new developments in the field of lactation research all the time. Furthermore, such education needs to be mandatory. If it is optional, there is a danger that health professionals who lack knowledge, skills or even an

³ Smale M, Renfrew M, Marshall JL, Spiby H (2006) Turning policy into practice: more difficult than it seems. The case of breastfeeding education. *Matern Child Nutr* 2006 Apr;2(2):103-113.

⁴ *ibid*

interest in this area, in other words, the professionals who would most benefit from breastfeeding training or in-services, will be able to eschew such educational opportunities.

I am providing some examples from my personal experience, and from experiences of friends and family, to support my contention that continuous education must be provided to *all* health professionals:

- I was advised by a maternal and child health nurse that it was okay to introduce solids before an infant was 6 months old if the infant appeared hungry or interested in solid food. I was also advised to give my daughter boiled water before she was 6 months of age. I followed this advice, as I was not aware of the WHO recommendations regarding the introduction of complementary foods to infants at this time.
- Several friends have reported that they were advised by their GP's to give their breastfed infants a bottle of formula before they went to bed so the infant would 'sleep through the night'. None of these friends were subsequently advised of any possible risks associated with the introduction of artificial milk into their infants' diets.
- A friend who was demand feeding, and feeding her son then aged 6 weeks every couple of hours was advised by her obstetrician to restrict feeding to 3 hourly intervals, then cut back to 4 hourly intervals, supposedly so she could have a break, but also to train the baby not to be so demanding.
- A relative who had to wean suddenly when she required surgery and medications which were contraindicated with breastfeeding was provided with free samples of infant formula by her maternal and child health nurse.

Whilst Australia has targets which aim to increase the proportion of Australian infants who are breastfed, it will be difficult to achieve these targets when health professionals undermine breastfeeding, perhaps inadvertently, through their attitudes, knowledge and behaviours.

4.5 Address negative social and community attitudes towards breastfeeding

Another major barrier to prolonged breastfeeding, I believe, concerns negative social and community attitudes towards breastfeeding. From my experience, almost all people believe that 'breast is best', and that it is more desirable for a newborn to be breastfed than bottle-fed. However, as babies get older, there seems to be a widely held view that it is more acceptable to bottle-feed, particularly in public.

This attitude was particularly highlighted in a recent Australian study, which examined community attitudes to infant feeding in Australia. The researchers found that over 80% of respondents believed bottle-feeding was more acceptable in public places than breastfeeding. More than 80% of respondents agreed that bottle-feeding meant anyone can feed the baby. Almost 70% of respondents also believed there was not always a place to breastfeed when outside the home. These findings reflect the low level of social and environmental support for breastfeeding in Australia⁵.

⁵ McIntyre E, Hillier J and Turnball D (2001) Community attitudes to infant feeding *Breastfeeding Review* 9(3):27-33.

Part of the problem, I believe, is that in western culture, women's breasts are regarded primarily as sexual objects than as infant feeding instruments. When people see a woman breastfeeding a child who is not a newborn, this is perceived by some people to have sexual overtones. This is despite the fact that it is acceptable in our society for women to dress in scanty, cleavage-revealing clothes, and female nudity is commonplace in films.

In my personal experience, I once had a man exclaim 'too much information' when I made a comment about the amount of weight I had lost thanks to breastfeeding my daughter, who was then aged around 14 months. I very much doubt such a comment would have been made if I had stated I was bottle-feeding my daughter (and had thus been unable to shed all my post-baby weight!). Despite my commitment to breastfeeding, I would not feel at all comfortable breastfeeding a toddler in public these days. The exception is one café I frequent from time to time, which has an Australian Breastfeeding Association sticker on the door, with the words 'Breastfeeding Welcome Here'.

To address these negative attitudes towards breastfeeding, it is imperative the government fund community awareness campaigns through the media which highlight a mother's right to breastfeed her infant (or toddler) in public places, and which encourage the community to value and feel comfortable with breastfeeding in public. Furthermore, the government could provide support to initiatives which raise the profile of breastfeeding, such as the ABA's Breastfeeding Friendly Business campaign.

4.6 Make breastfeeding support services, such as lactation consultants and breastfeeding peer support groups such as the ABA, more accessible

Increasing the accessibility of breastfeeding support services is vital to helping women who are having difficulties establishing breastfeeding. I struggled to establish breastfeeding for the first six weeks of my daughter's life until I was able to receive practical and emotional support from both a lactation consultant and an ABA counsellor. I do not recall knowing about the existence of either service when I was pregnant, or when I attended antenatal classes. It was not until I was at home that I thought to call the hospital and the ABA for assistance.

I feel it is important for expectant mothers to be adequately prepared for breastfeeding, to know that although it is a natural process, breastfeeding is still a skill which must be learnt, and to know where they can get support if they encounter difficulties. Breastfeeding classes for expectant mothers should be promoted hand-in-hand with antenatal classes, as I believe more than a one hour seminar is needed to prepare women for breastfeeding.

4.7 Promote breastfeeding-friendly workplaces

An important factor influencing duration of breastfeeding is the mothers' employment status and associated employment practices. Many mothers stop breastfeeding within a few months due to the need to return to work. In particular, working weekends and shift work have a negative influence on the exclusivity and duration of breastfeeding. Many women who return to work in the early postpartum period cease breastfeeding after a few weeks, and women who have limited or no access to maternity leave are less likely to initiate or continue breastfeeding.

Duration of breastfeeding is also influenced by the flexibility of employment with part-time workers more likely to breastfeed for longer than full-time workers. Women with opportunities to feed their infants while at work are also more likely

to continue breastfeeding. Other factors known to positively affect breastfeeding are the provision by employers of lactation education, support, equipment and facilities.

I returned to part time paid employment when my daughter was just over 7 months old. My employer was extremely supportive of breastfeeding. Up until my daughter turned 12 months, my employer permitted me to take lactation breaks each day to either express milk or breastfeed my daughter, who would be brought into my workplace for her 'lunch' by family members. Thanks to the support of my employer, my daughter did not require artificial milk when I was away at work. My employer also benefited from this arrangement as my daughter was never sick, so I never needed to take any carer's leave. I also found that my workplace productivity was not adversely affected when I was taking lactation breaks; indeed, I found my productivity increased to compensate for any work time during lactation breaks.

I am aware that the ABA has a Breastfeeding Friendly Accreditation Program for employers, which I think is a fantastic idea warranting support and promotion from government, employers and employees.

4.8 Introduce a national paid maternity leave scheme

It is time to introduce a national paid maternity leave scheme based on the schemes which have operated in many European countries for several decades. This scheme would be funded from taxation, and be made available to all new mothers, not just those in paid employment.

A national paid maternity leave scheme would have an enormous impact on women from disadvantaged and lower socio-economic backgrounds. This population traditionally has lower rates of breastfeeding than the Australian average, and their infants are often weaned earlier than they would have liked as these women often need to make an early return to paid employment for financial reasons.

5. Examine the effectiveness of current measures to promote breastfeeding

5.1 The WHO Code and the MAIF Agreement

In Australia, the vehicle by which the 1981 WHO Code has been implemented is the Marketing in Australia of Infant Formula (MAIF) Agreement. It is clear that the MAIF agreement is not working. For a start, it is a voluntary industry code, and narrow in scope and membership. It does not extend to retailing, or to the marketing of products such as bottles and teats, baby foods and juices, all of which fall within the scope of the WHO Code. There is also growing evidence that manufacturers are marketing their products by giving gifts to health professionals, providing health professionals, hospitals and childcare centres with free samples, and through direct marketing to mothers. Disturbingly, this Agreement is not adhered to consistently by its signatories, does not cover a growing number of manufacturers or importers, and is not enforced by government.

The WHO Code urgently needs to be implemented in its entirety via legislative amendments to the Trade Practices Act or Fair Trading legislation. Food labelling laws must also be amended to reflect the National Health and Medical Research Council's recommendations for exclusive breastfeeding. The continued presence of jars of baby food with 'suitable for 4 months plus' in supermarkets undermines the NHMRC's guidelines. Health professionals who receive gifts from manufacturers must be required to disclose such gifts to their clients.

5.2 The Baby Friendly Hospital Initiative (BFHI)

I believe that Baby Friendly Hospitals are a wonderful idea, and are ideally placed to promote breastfeeding. They serve as a reminder of how different practices were in maternity hospitals a generation ago, when babies were fed every 4 hours, when many were given 'top-ups' of artificial milk, and when babies were not permitted to room-in with their mothers.

It is unfortunate that not all maternity facilities have received BFHI accreditation. The hospital in which I delivered my daughter was not accredited, and yet the support I received from staff was consistent with the Ten Steps to Successful Breastfeeding.

I believe greater government funding and support is required to support this initiative in Australia, so that all maternity facilities can receive the BFHI accreditation in the near future. Perhaps funding of maternity facilities could be linked to attainment of BFHI accreditation.

6. The impact of breastfeeding on the long term sustainability of Australia's health system

Increasing the proportion of Australian infants who are exclusively breastfed to 6 months, and who continue to be breastfed to 12 months and beyond, will undoubtedly have a positive impact on the long-term sustainability of Australia's health system, and will bring in enormous cost savings.

One need only consider recent Australian research into the hospital system costs of artificial feeding to understand the potential cost savings to the Australian taxpayer if more infants were fully breastfed. In 2002, a study estimated the attributable ACT hospital system costs of treating selected infant and childhood illnesses which had known associations with early weaning from human milk⁶. ACT Hospital Morbidity Data and DRG treatment costs were used to estimate the attributable portion of hospitalisation costs for gastrointestinal illness, respiratory illness, otitis media, eczema, and necrotising enterocolitis.

Although initiation rates among the 1295 women in this sample were high (92%), less than one in 10 ACT infants were exclusively breastfed for the recommended six months, as a result of supplementation or weaning on to formula within the first three months and the early introduction of solids by breastfeeding mothers.

This study indicated the attributable hospitalisation costs of early weaning in the ACT are around \$1-2 million a year for these five illnesses. Extrapolated nationally, the costs of early weaning are \$60 to \$120 million annually. The authors concluded that interventions to protect and support breastfeeding are likely to be cost-effective for the public health system.

⁶ Smith JP, Thompson JF and Ellwood DA (2002) Hospital system costs of artificial feeding: Estimates for the Australian Capital Territory. *Australian and New Zealand Journal of Public Health* 26(6):543-551.